

In the Claims

This listing of claims will replace all previous listings of claims in the application. Please amend Claims 1 and 5, as shown below. Please cancel Claims 9-12.

What is claimed is:

1. (Currently amended) A method for multiplexing compressed video input data streams, each input data stream divided into video frames, into an output data stream with low latency, the output data stream divided into video frames, the method comprising:
  - a. receiving each a plurality of input data streams;
  - b. ~~providing an input buffer, the buffer capable of holding at least a maximum size video frame for each input data stream; and~~
  - b. combining a corresponding video frame from each input data stream to form a corresponding video frame for the output data stream;
  - c. for each input data stream, when a given video frame in from the input data stream is larger than a threshold size, dividing the given video frame into at least a first part and a second part and rescheduling at least one part of the given video frame for transmission in a specified output data stream video frame, where the specified output data stream video frame is scheduled for transmission earlier than the corresponding video frame time in the output data stream corresponding to the given video frame from the input data stream; and
  - d. transmitting the output data stream.
2. (Original) A method according to claim 1, wherein the threshold size is predetermined.
3. (Original) A method according to claim 1, wherein the threshold size is

determined adaptively.

4. (Original) A method according to claim 1 wherein at least one of the input data streams is an MPEG-encoded video stream.

5. (Currently amended) A multiplexer for combining a plurality of compressed video input data streams into an output data stream with low latency, each input data stream divided into video frames, each output data stream divided into video frames, the multiplexer comprising:

a. logic combining corresponding video frames from each input data stream to form a corresponding video frame for the output data stream ~~for scheduling the transmission of video frames in the output data stream~~; and

b. for each input data stream, when a given video frame from the input data stream is larger than a threshold size logic for dividing the given video frame into a first part and a second part and rescheduling at least one part of the given video frame for transmission in a specified output data stream video frame, where the specified output data stream video frame is scheduled for transmission earlier than the video frame in the output data stream corresponding to the given video frame from the input data stream ~~for dividing a given video frame in a given input data stream into at least a first part and a second part and rescheduling at least one part of the given video frame for transmission in the output data stream earlier than a corresponding frame time for the given video frame, when the given video frame is larger than a threshold size~~.

6. (Original) A multiplexer according to claim 5, wherein the threshold size is predetermined.

7. (Original) A multiplexer according to claim 5, wherein the threshold size is determined adaptively.

8. (Original) A multiplexer according to claim 5, wherein at least one of the input data streams is an MPEG-encoded video stream.

9-12 Cancelled.